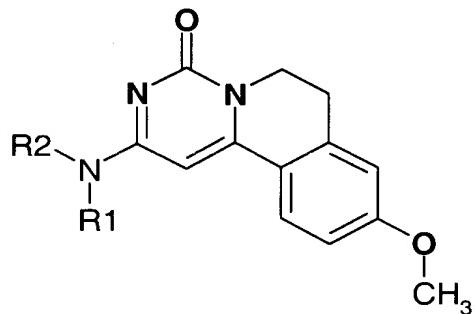


**Amendments to the claims**

This listing of claims will replace all prior versions, and listings, of claims in the application:

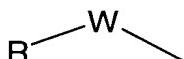
1. (Original) A compound of the formula I, or a salt, solvate, or a physiologically functional derivative thereof



in which

R1 is hydrogen, -NH<sub>2</sub>, or C<sub>1-6</sub>alkyl;  
R2 is hydrogen; or

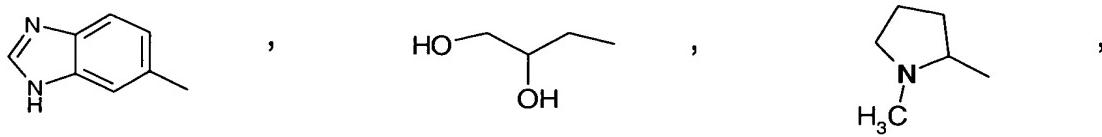
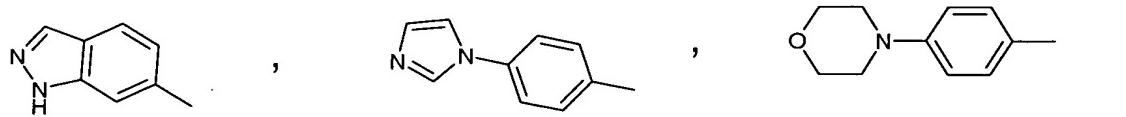
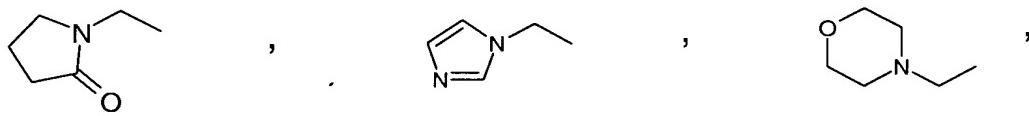
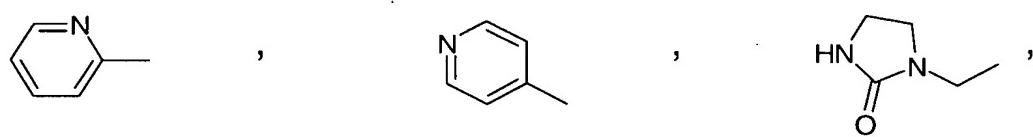
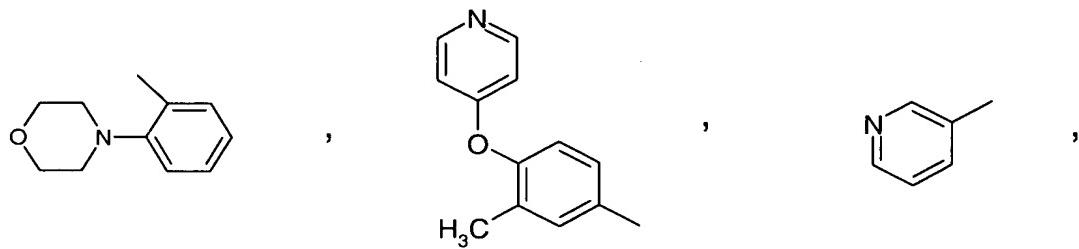
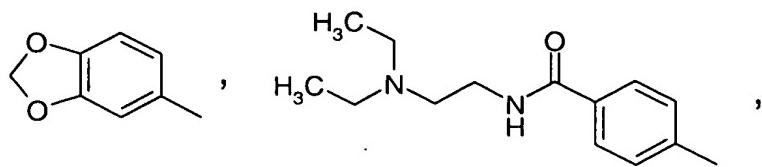
R2 is a radical of the formula

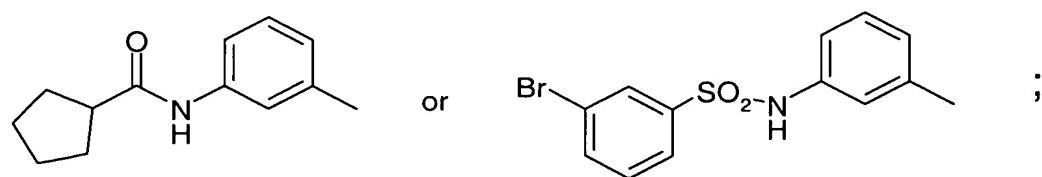
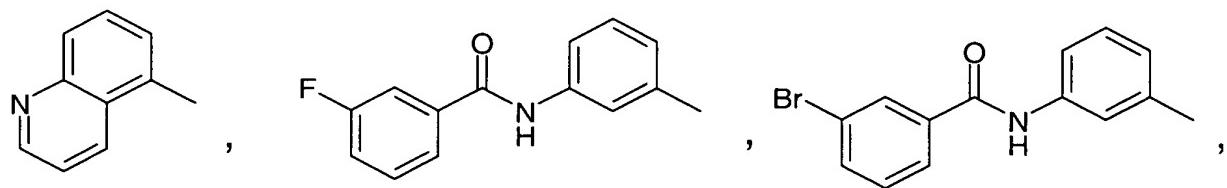
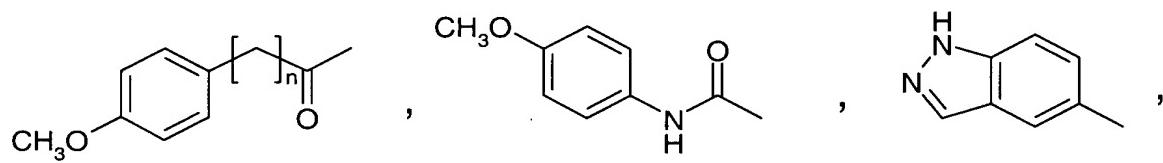
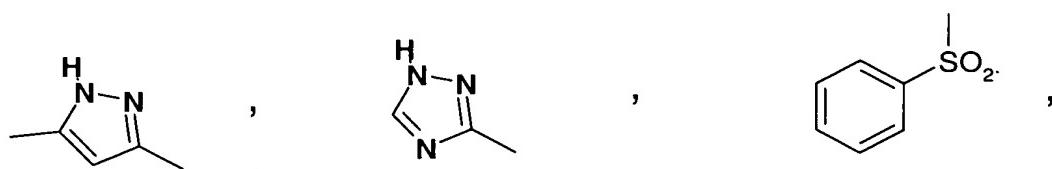
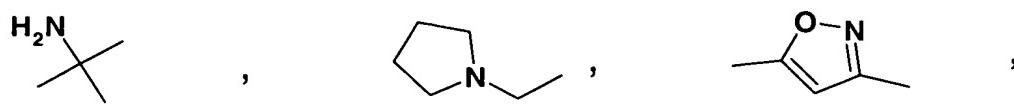
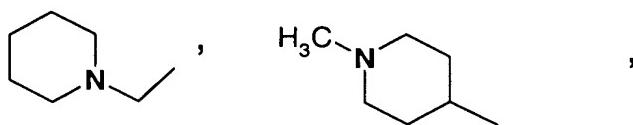


in which W is a bond, -CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>-, -C(=O)-, -NCH<sub>3</sub>-, or -NH-;

R is C<sub>3-6</sub>cycloalkyl, C<sub>1-6</sub>alkyl, hydroxy, -NH<sub>2</sub>, (C<sub>1-6</sub>alkyl)<sub>2</sub>N-, C<sub>1-6</sub>alkylO-, C<sub>1-6</sub>alkylOCH<sub>2</sub>-, phenyl optionally and independently substituted with one to three C<sub>1-6</sub>alkyl, halogen, C<sub>1-6</sub>alkylO-, C<sub>1-6</sub>alkylOC(=O)-, acetyl, NH<sub>2</sub>C(=O)-, FSO<sub>2</sub>-, -CF<sub>3</sub>, NH<sub>2</sub>SO<sub>2</sub>-, dimethylamino; HOCH<sub>2</sub>-, CH<sub>3</sub>NHC(=O)-, hydroxy, phenyl; or

R is a radical of the formula





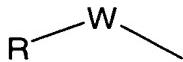
provided that W cannot be CH<sub>2</sub> when point of attachment of R to W is oxygen or nitrogen.

2. (Original) The compounds of formula I of claim 1 in which

R1 is hydrogen, or C<sub>1-6</sub>alkyl;

R2 is hydrogen; or

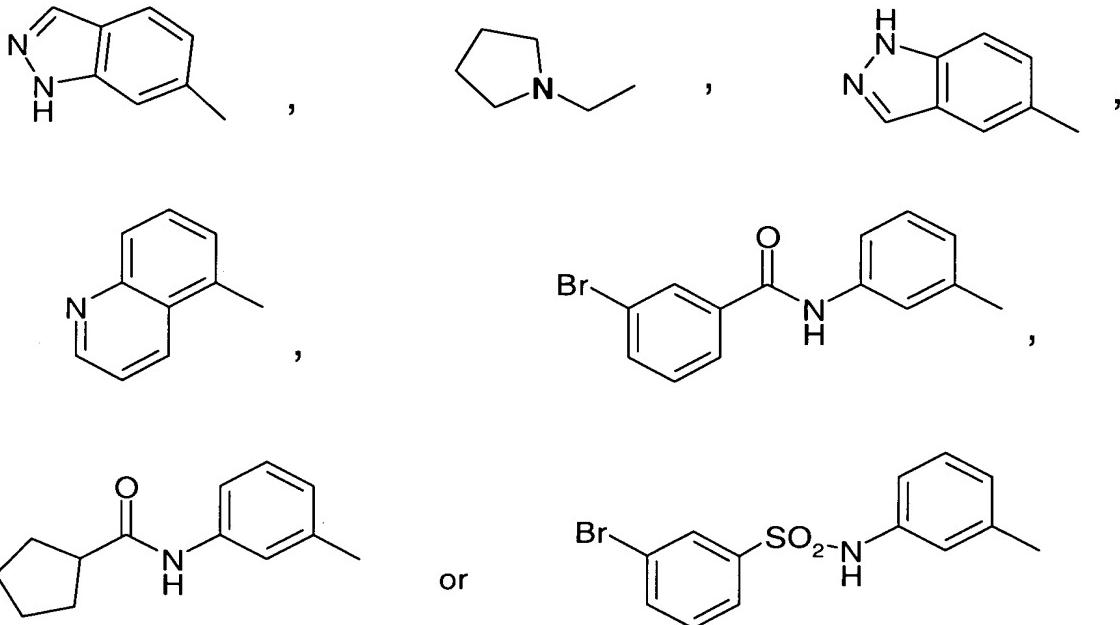
R2 is a radical of the formula



in which W is a bond, -CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>-, -C(=O)-, -NCH<sub>3</sub>-, or -NH-;

R is C<sub>1-6</sub>alkyl, hydroxy, -NH<sub>2</sub>, (C<sub>1-6</sub>alkyl)<sub>2</sub>N-, C<sub>1-6</sub>alkylO-, C<sub>1-6</sub>alkylOCH<sub>2</sub>-, phenyl optionally and independently substituted with one to three C<sub>1-6</sub>alkyl, halogen, C<sub>1-6</sub>alkylO-, C<sub>1-6</sub>alkylOC(=O)-, -CF<sub>3</sub>, NH<sub>2</sub>SO<sub>2</sub>-, hydroxy, phenyl; or

R is a radical of the formula



provided that W cannot be CH<sub>2</sub> when point of attachment of R to W is oxygen or nitrogen.

3. (Currently Amended) A method of inhibiting hYAK3 and/or MK2 proteins in a mammal; comprising, administering to the mammal a therapeutically effective amount of a compound of claim 1 or 2, or a salt, solvate, or a physiologically functional derivative thereof.

4. (Currently Amended) A method of treating or preventing a disorder selected from the group consisting of neutropenia; cytopenia; anemias, including anemias due to renal insufficiency or to a chronic disease, such as autoimmunity or cancer, and drug-induced anemias; polycythemia; myelosuppression; rheumatoid arthritis; COPD; asthma; psoriasis; acute neuronal injury; heart failure; stroke, osteoarthritis; and ischemia reperfusion injury; comprising, administering to a mammal a therapeutically effective amount of a compound of claim 1 or 2, or a salt, solvate, or a physiologically functional derivative thereof and one or more of pharmaceutically acceptable carriers, diluents and excipients.

5. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 2-(2,6-dimethoxy-phenylamino)-9-methoxy-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.

6. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 2-(1H-indazol-5-ylamino)-9-methoxy-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.

7. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 9-methoxy-2-(2-methoxy-6-methyl-phenylamino)-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one .

8. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 2-(1H-indazol-6-ylamino)-9-methoxy-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.

9. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 2-(2-bromo-phenylamino)-9-methoxy-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.

10. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 3-(9-methoxy-4-oxo-6,7-dihydro-4H-pyrimido[6,1-a]isoquinolin-2-ylamino)-benzenesulfonamide.

11. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 2-(2-chloro-phenylamino)-9-methoxy-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.

12. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 2-(2,6-dimethyl-phenylamino)-9-methoxy-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.)

13. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 2-(2-bromo-6-fluoro-phenylamino)-9-methoxy-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.

14. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 2-(3-methoxy-phenylamino)-9-methoxy-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.
15. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 2-(2-hydroxy-6-methyl-phenylamino)-9-methoxy-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.
16. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 9-methoxy-2-(4-methoxy-biphenyl-3-ylamino)-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.
17. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 3-(9-methoxy-4-oxo-6,7-dihydro-4H-pyrimido[6,1-a]isoquinolin-2-ylamino)-benzoic acid ethyl ester.
18. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 9-methoxy-2-(2-methoxy-phenylamino)-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.
19. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 9-methoxy-2-(2-trifluoromethyl-phenylamino)-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.
20. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 2-(4-chloro-2,6-dimethyl-phenylamino)-9-methoxy-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.
21. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 9-methoxy-2-(quinolin-5-ylamino)-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.
22. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 2-(2-chloro-5-methoxy-phenylamino)-9-methoxy-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.
23. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 2-[N'-(2-bromo-phenyl)-hydrazino]-9-methoxy-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.
24. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 9-methoxy-2-(N'-methyl-N'-phenyl-hydrazino)-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.

25. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 2-(2-amino-ethylamino)-9-methoxy-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.
26. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 9-methoxy-2-(2-pyrrolidin-1-yl-ethylamino)-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.
27. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 2-(2-dimethylamino-ethylamino)-9-methoxy-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.
28. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 2-(2-hydroxy-ethylamino)-9-methoxy-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.
29. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 9-methoxy-2-[(2-methoxy-ethyl)-methyl-amino]-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.
30. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 9-methoxy-2-(4-methoxy-benzylamino)-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.
31. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 9-methoxy-2-(3-methoxy-benzylamino)-6,7-dihydro-pyrimido[6,1-a]isoquinolin-4-one.
32. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 3-bromo-N-[3-(9-methoxy-4-oxo-6,7-dihydro-4H-pyrimido[6,1-a]isoquinolin-2-ylamino)-phenyl]-benzamide.
33. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is cyclopentanecarboxylic acid [3-(9-methoxy-4-oxo-6,7-dihydro-4H-pyrimido[6,1-a]isoquinolin-2-ylamino)-phenyl]-amide.
34. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 3-bromo-N-[3-(9-methoxy-4-oxo-6,7-dihydro-4H-pyrimido[6,1-a]isoquinolin-2-ylamino)-phenyl]-benzenesulfonamide.
35. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 2-methoxy-N-(9-methoxy-4-oxo-6,7-dihydro-4H-pyrimido[6,1-a]isoquinolin-2-yl)-acetamide.

36. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 2,4,6-trichloro-N-(9-methoxy-4-oxo-6,7-dihydro-4H-pyrimido[6,1-a]isoquinolin-2-yl)-benzamide.

37. (Currently Amended) A compound of ~~any one of claims 1 to 4~~ claim 1 that is 2-methoxy-N-(9-methoxy-4-oxo-6,7-dihydro-4H-pyrimido[6,1-a]isoquinolin-2-yl)-acetamide.